IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): ~~The polymer electrolyte fuel cell according to Claim 1,~~ A polymer electrolyte fuel cell comprising a polymer electrolyte which comprises an ion exchange membrane, catalyst layers disposed on both sides thereof, and current collectors disposed on the outer sides of said catalyst layers, wherein said current collectors comprise a porous sheet which comprises a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, deposited on a surface thereof, wherein said porous sheet has a thickness of from 0.1 to 1 mm and a porosity of from 30 to 90%, and wherein ~~the~~ said solvent-soluble fluorine-containing polymer is a polymer having a fluorine-containing aliphatic ring structure.

Claims 3-4 (Canceled).

Claim 5 (Currently Amended): ~~The polymer electrolyte fuel cell according to Claim 1,~~ A polymer electrolyte fuel cell comprising a polymer electrolyte which comprises an ion exchange membrane, catalyst layers disposed on both sides thereof, and current collectors disposed on the outer sides of said catalyst layers, wherein said current collectors comprise a porous sheet which comprises a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, deposited on a surface thereof, wherein said porous sheet has a thickness of from 0.1 to 1 mm and a porosity of from 30 to 90%, and wherein ~~the~~ said fluorine-containing polymer is present in an amount of from 0.001 to 60% based on the total mass of ~~the~~ said current collectors.

Claim 6 (Currently Amended): ~~The polymer electrolyte fuel cell according to Claim 1,~~ A polymer electrolyte fuel cell comprising a polymer electrolyte which comprises an ion exchange membrane, catalyst layers disposed on both sides thereof, and current collectors disposed on the outer sides of said catalyst layers, wherein said current collectors comprise a porous sheet which comprises a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, deposited on a surface thereof, wherein said porous sheet has a thickness of from 0.1 to 1 mm and a porosity of from 30 to 90%, and wherein ~~the~~ said porous sheet comprises a carbonaceous material.

Claim 7-10 (Canceled).

Claim 11 (Currently Amended): The polymer electrolyte fuel cell according to Claim 2, wherein ~~the~~ said fluorine-containing polymer is present in an amount of from 0.001 to 60% based on the total mass of ~~the~~ said current collectors.

Claim 12 (Currently Amended): The polymer electrolyte fuel cell according to Claim 2, wherein ~~the~~ said porous sheet comprises a carbonaceous material.

Claims 13-16 (Canceled).

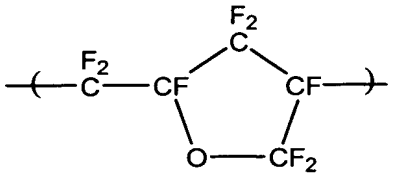
Claim 17 (Currently Amended): The polymer electrolyte fuel cell according to Claim 26, wherein ~~the~~ said fluorine-containing polymer is present in an amount of from 0.001 to 60% based on the total mass of ~~the~~ said current collectors.

Claim 18 (Currently Amended): The polymer electrolyte fuel cell according to Claim 26, wherein ~~the~~ said porous sheet comprises a carbonaceous material.

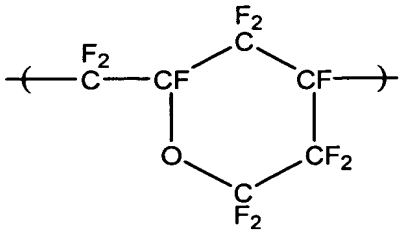
Claim 19 (Currently Amended): A polymer electrolyte fuel cell comprising a polymer electrolyte which comprises an ion exchange membrane, catalyst layers disposed on both sides thereof, and current collectors disposed on the outer sides of ~~the~~ said catalyst layers, wherein ~~the~~ said current collectors comprise a porous sheet which comprises a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, deposited on ~~its~~ a surface thereof, wherein

~~the~~ said porous sheet has a thickness of from 0.1 to 1 mm and a porosity of from 30 to 90%, and

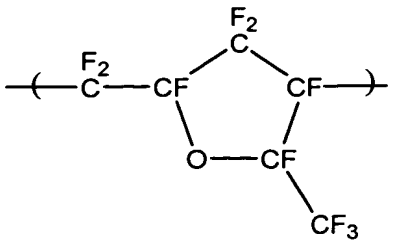
~~the~~ said fluorine-containing polymer comprises polymer units represented by any one of ~~the following formulae~~ Formula 5 to Formula 13:



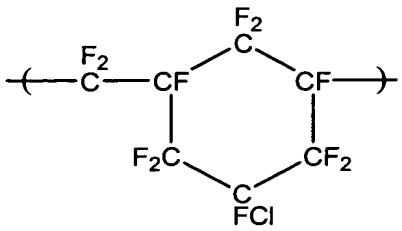
. . . Formula 5



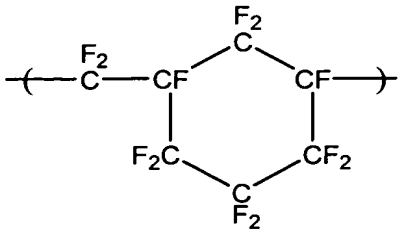
. . . Formula 6



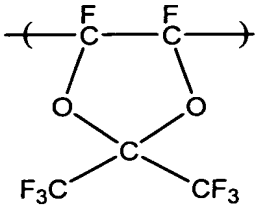
. . . Formula 7



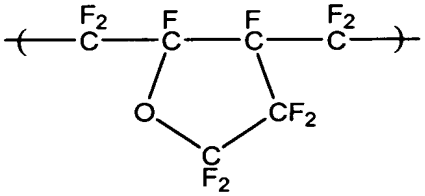
. . . Formula 8



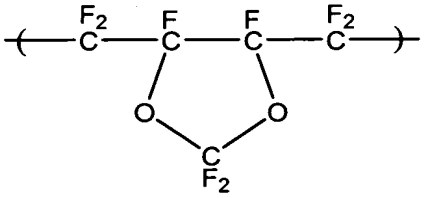
. . . Formula 9



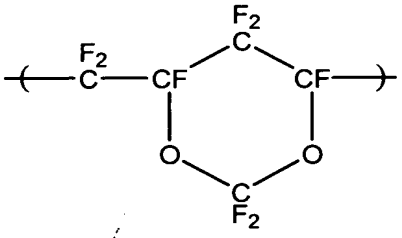
. . . Formula 10



. . . Formula 11



. . . Formula 12



. . . Formula 13.

Claim 20 (Currently Amended): A method for producing a polymer electrolyte fuel cell, which comprises

disposing catalyst layers on both sides of a polymer electrolyte comprising an ion exchange membrane, and

~~further~~ disposing current collectors comprising a porous sheet on the outer sides of said ~~the~~ catalyst layers,

wherein ~~the~~ said current collectors are prepared by impregnating or spraying a solution having a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, dissolved in a solvent, to ~~the~~ said porous sheet, to deposit ~~the~~ said fluorine-containing polymer on ~~the~~ said porous sheet, wherein ~~the~~ said solvent is a fluorine-containing solvent, and the concentration of the solute in ~~the~~ said solution is from 0.01 to 50% based on the total mass of ~~the~~ said solution.

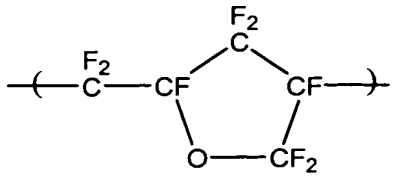
Claim 21 (Currently Amended): The method for producing a polymer electrolyte fuel cell according to Claim 20, further comprising heating ~~the~~ said porous sheet at a temperature of from 100 to 250°C after said impregnating or spraying step.

Claim 22 (Canceled).

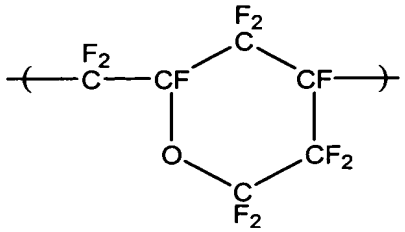
Claim 23 (Currently Amended): The method for producing a polymer electrolyte fuel cell according to Claim 20, wherein ~~the~~ said solvent-soluble fluorine-containing polymer is a polymer having a fluorine-containing aliphatic ring structure.

Claims 24-25 (Canceled).

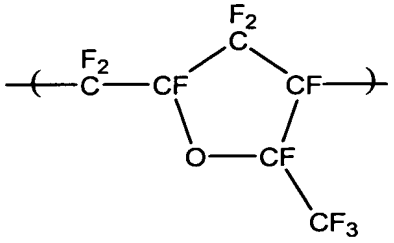
Claim 26 (Currently Amended): The polymer electrolyte fuel cell according to Claim 2, wherein ~~the~~ said fluorine-containing polymer comprises polymer units represented by any one of ~~the following formulae~~ Formula 5 to Formula 13:



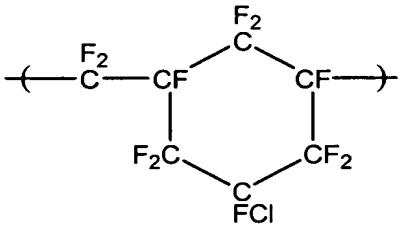
. . . Formula 5



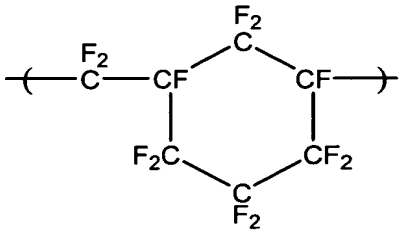
. . . Formula 6



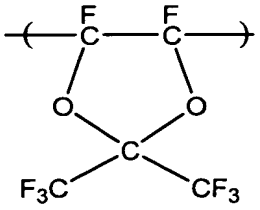
. . . Formula 7



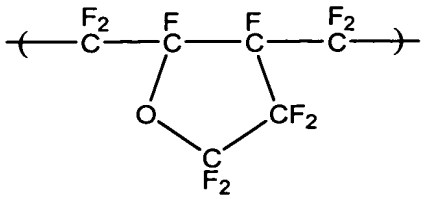
. . . Formula 8



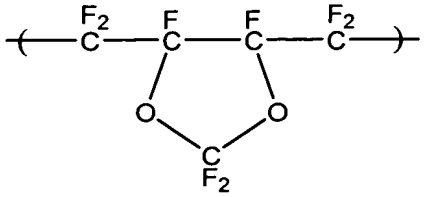
. . . Formula 9



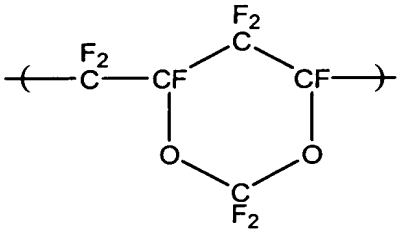
. . . Formula 10



. . . Formula 11

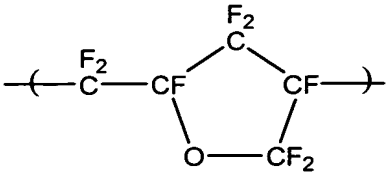


. . . Formula 12

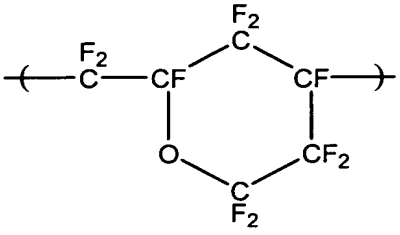


. . . Formula 13.

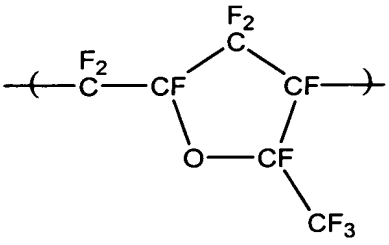
Claim 27 (Currently Amended): The method for producing a polymer electrolyte fuel cell according to Claim 20, wherein ~~the~~ said fluorine-containing polymer comprises polymer units represented by any one of ~~the following formulae~~ Formula 5 to Formula 13:



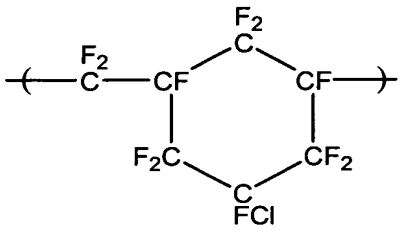
. . . Formula 5



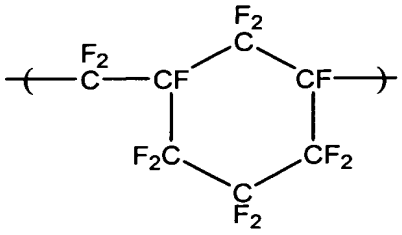
. . . Formula 6



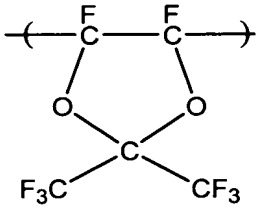
. . . Formula 7



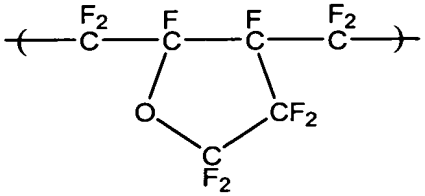
. . . Formula 8



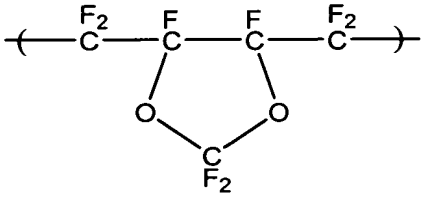
. . . Formula 9



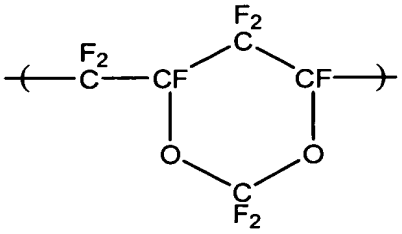
. . . Formula 10



. . . Formula 11



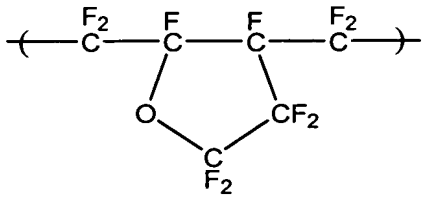
. . . Formula 12



. . . Formula 13.

Claim 28 (Currently Amended): A polymer electrolyte fuel cell comprising a polymer electrolyte which comprises an ion exchange membrane, catalyst layers disposed on both sides thereof, and current collectors disposed on the outer sides of ~~the~~ said catalyst

layers, wherein ~~the~~ said current collectors comprise a porous sheet which comprises a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, deposited on ~~its~~ a surface thereof, wherein ~~the~~ said solvent-soluble fluorine-containing polymer is a polymer having a fluorine-containing aliphatic ring structure, and comprises polymer units represented by



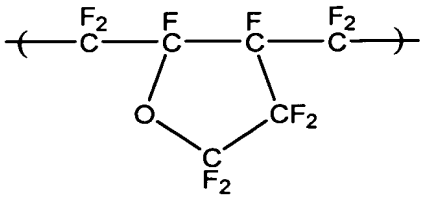
. . . Formula 11.

Claim 29 (Currently Amended): A method for producing a polymer electrolyte fuel cell, which comprises

disposing catalyst layers on both sides of a polymer electrolyte which comprises an ion exchange membrane, and

~~further~~ disposing current collectors which comprises a porous sheet on the outer sides of ~~the~~ said catalyst layers,

wherein ~~the~~ said current collectors are prepared by impregnating or spraying a solution having a solvent-soluble fluorine-containing polymer having substantially no ion exchange groups, dissolved in a solvent, to ~~the~~ said porous sheet, to deposit ~~the~~ said fluorine-containing polymer on ~~the~~ said porous sheet, wherein ~~the~~ said fluorine-containing polymer comprises polymer units represented by



. . . Formula 11.

Claim 30 (New): The polymer electrolyte fuel cell according to Claim 28, wherein said porous sheet has a thickness of from 0.1 to 1 mm and a porosity of from 30 to 90%.

Claim 31 (New): The polymer electrolyte fuel cell according to Claim 28, wherein said fluorine-containing polymer is present in an amount of from 0.001 to 60% based on the total mass of said current collectors.

Claim 32 (New): The polymer electrolyte fuel cell according to Claim 28, wherein said porous sheet comprises a carbonaceous material.

Claim 33 (New): The method according to Claim 29, wherein the concentration of the solute in said solution is from 0.01 to 50% based on the total mass of said solution.

Claim 34 (New): The method according to Claim 29, further comprising heating said porous sheet at a temperature of from 100 to 250°C after said impregnating or spraying step.